IN THE CLAIMS

The claims have not been amended, and are provided here for the Examiner's convenience

1. (Original) A method for transmitting stream data in a computer network, the method comprising the steps of:

identifying at least two packets of stream data that are destined to a common location in a computer network;

forming a pooled packet of stream data using the at least two packets of stream data; and

transmitting the pooled packet to the common location in the computer network.

2. (Original) The method of claim 1 wherein the step of identifying comprises the steps of:

detecting a first packet of stream data; and

obtaining routing information based on information in the first packet that identifies a first network path upon which the first packet of stream data is to be routed; and

detecting at least one second packet of stream data containing information that indicates the second packet is also to be routed on the first network path.

3. (Original) The method of claim 2 wherein the first network path identifies a first predetermined number of network hops upon which the first packet is to be routed, and wherein the step of detecting at least one second packet comprises the steps of:

detecting at least one second packet that is to be routed on the first network path for a second predetermined number of network hops that exist along the first network path.

4. (Original) The method of claim 3 wherein the first predetermined number of network hops is greater than or equal to the second predetermined number of network hops.

5. (Original) The method of claim 2 wherein the steps of detecting a first packet and detecting a second packet occur in relation to each other within a pooling time window such that the step of forming a pooled packet forms a pooled packet from only those packets that arrive within the pooling time window and that are destined towards a common location in the computer network.

6. (Original) The method of claim 1 wherein the step of identifying further comprises the step of:

identifying a predetermined number of packets to be included in the at least two packets, such that step of forming forms a pooled packet that contains the predetermined number of packets destined to a common location in a computer network.

7. (Original) The method of claim 1 wherein the step of identifying comprises the step of:

identifying packets to be included in the at least two packets that have sizes that meet a predetermined size requirement, such that a sum of sizes of the at least two packets that form the pooled packet does not exceed a maximum packet size.

8. (Original) The method of claim 1 wherein the step of forming a pooled packet comprises the steps of:

combining contents of each of the at least two packets into the pooled packet; and

generating a pooled packet index for the pooled packet, the pooled packet index indicating a location within the pooled packet of each of the at least two packets;

and wherein the step of transmitting the pooled packet to the common location in the computer network includes transmitting the pooled packet index to the common location in the computer network.

9. (Original) The method of claim 8 wherein the location of each of the at least two packets in the pooled packet indicates a starting position of each of the at least two packets in the pooled packet and wherein the pooled packet index indicates a length of each of the at least two packets in the pooled packet.

10. (Original) The method of claim 8 wherein the pooled packet index includes at least one time to live indicator indicating a number of network hops along a route towards the common location in the computer network that at least one packet in the pooled packet is to be transmitted.

11. (Original) The method of claim 1 wherein the at least two packets are encoded to be transported through the computer network using a stream transfer protocol.

12. (Original) A method for transmitting stream data in a network, the method comprising the steps of:

receiving, at a first destination in the computer network, a pooled packet of stream data containing a representation of at least two packets of stream data;

detecting if the pooled packet of stream data contains at least one packet of stream data that is to be extracted from the pooled packet of stream data at the first destination, and if the at least one packet of stream data is to be extracted from the pooled packet:

extracting the at least one packet of stream data from the pooled packet; and

transmitting the extracted at least one packet of stream data to a destination associated with the at least one packet.

13. (Original) The method of claim 12:

wherein the step of receiving comprises the step of decrementing a time to live indicator within the pooled packet; and

wherein the step of detecting detects that the pooled packet of stream data contains at least one packet of stream data that is to be extracted from the pooled packet if the time to live indicator within the pooled packet   has expired.

14. (Original) The method of claim 12 wherein the step of detecting detects that the pooled packet of stream data contains at least one packet of stream data that is to be extracted from the pooled packet if a destination indicator in the pooled packet is equal to a destination location of the first destination in the computer network.

15. (Original) The method of claim 12 wherein the step extracting the at least one packet of stream data from the pooled packet comprises the steps of:

obtaining, from a pooled packet index in the pooled packet, a starting location and length of the at least one packet of stream data in the pooled packet; and

extracting the at least one packet of stream data from the pooled packet based on starting location and length of the at least one packet of stream data.

16. (Original) A data communications device comprising:

at least one communications interface;

a memory;

a processor; and

an interconnection mechanism coupling the at least one communications interface, the memory and the processor;

wherein the memory is encoded with a packet pool controller application that when performed on the processor, produces a packet pool controller process that causes the data communications device to transmit stream data in a computer network by performing the operations of:

identifying at least two packets of stream data that are destined to a common location in a computer network;

forming a pooled packet of stream data using the at least two packets of stream data; and

transmitting, via the at least one communications interface, the pooled packet to the common location in the computer network.

17. (Original) The data communications device of claim 16 wherein when the packet pool controller process causes the data communications device to perform the operation of identifying, the packet pool controller process causes the data communications device to perform the operations of:

detecting a first packet of stream data; and

obtaining routing information based on information in the first packet that identifies a first network path upon which the first packet of stream data is to be routed; and

detecting at least one second packet of stream data containing information that indicates the second packet is also to be routed on the first network path.

18. (Original) The data communications device of claim 17 wherein the first network path identifies a first predetermined number of network hops upon which the first packet is to be routed, and wherein when the packet pool controller process causes the data communications device to perform the operation of detecting at least one second packet, the packet pool controller process causes the data communications device to perform the operation of :

detecting at least one second packet that is to be routed on the first network path for a second predetermined number of network hops that exist along the first network path.

19. (Original) The data communications device of claim 18 wherein the first predetermined number of network hops is greater than or equal to the second predetermined number of network hops.

20. (Original) The data communications device of claim 17 wherein the operations of detecting a first packet and detecting a second packet occur in relation to each other within a pooling time window such that the operation of forming a pooled packet forms a pooled packet from only those packets that arrive within the pooling time window and that are destined towards a common location in the computer network.

21. (Original) The data communications device of claim 16 wherein when the packet pool controller process causes the data communications device to

perform the operation of identifying, the packet pool controller process causes the data communications device to perform the operation of:

identifying a predetermined number of packets to be included in the at least two packets, such that step of forming forms a pooled packet that contains the predetermined number of packets destined to a common location in a computer network.

22. (Original) The data communications device of claim 16 wherein when the packet pool controller process causes the data communications device to perform the operation of identifying, the packet pool controller process causes the data communications device to perform the operation of:

identifying packets to be included in the at least two packets that have sizes that meet a predetermined size requirement, such that a sum of sizes of the at least two packets that form the pooled packet does not exceed a maximum packet size.

23. (Previously Presented) The data communications device of claim 16 wherein when the packet pool controller process causes the data communications device to perform the operation of forming a pooled packet, the packet pool controller process causes the data communications device to perform the operation of :

combining contents of each of the at least two packets into the pooled packet; and

generating a pooled packet index for the pooled packet, the pooled packet index indicating a location within the pooled packet of each of the at least two packets;

and wherein the step of transmitting the pooled packet to the common location in the computer network includes transmitting the pooled packet index to the common location in the computer network.

24. (Original) The data communications device of claim 23 wherein the location of each of the at least two packets in the pooled packet indicates a starting position of each of the at least two packets in the pooled packet and wherein the pooled packet index indicates a length of each of the at least two packets in the pooled packet.

25. (Original) The data communications device of claim 23 wherein the pooled packet index includes at least one time to live indicator indicating a number of network hops along a route towards the common location in the computer network that at least one packet in the pooled packet is to be transmitted.

26. (Original) The data communications device of claim 16 wherein the at least two packets are encoded to be transported through the computer network using a stream transfer protocol.

27. (Original) A data communications device comprising:

     at least one communications interface;

     a memory;

     a processor; and

     an interconnection mechanism coupling the at least one communications interface, the memory and the processor;

     wherein the memory is encoded with a packet pool controller application that when performed on the processor, produces a packet pool controller process that causes the data communications device to transmit stream data in a computer network by performing the operations of:

     receiving via the at least one communications interface operating as a first destination in the computer network, a pooled packet of stream data containing a representation of at least two packets of stream data;

     detecting if the pooled packet of stream data contains at least one packet of stream data that is to be extracted from the pooled packet of stream data at

the first destination, and if the at least one packet of stream data is to be extracted from the pooled packet:

extracting the at least one packet of stream data from the pooled packet; and

transmitting the extracted at least one packet of stream data to a destination associated with the at least one packet.

28. (Original) The data communications device of claim 27:

wherein when the packet pool controller process causes the data communications device to perform the operation of receiving, the packet pool controller process causes the data communications device to perform the operation of decrementing a time to live indicator within the pooled packet; and

wherein when the packet pool controller process causes the data communications device to perform the operation of detecting, the data communications device detects that the pooled packet of stream data contains at least one packet of stream data that is to be extracted from the pooled packet if the time to live indicator within the pooled packet has expired.

29. (Original) The data communications device of claim 27 wherein when the packet pool controller process causes the data communications device to perform the operation of detecting, the data communications device detects that the pooled packet of stream data contains at least one packet of stream data that is to be extracted from the pooled packet if a destination indicator in the pooled packet is equal to a destination location of the first destination in the computer network.

30. (Previously Presented) The data communications device of claim 27 wherein when the packet pool controller process causes the data communications device to perform the operation of extracting the at least one packet of stream data from

the pooled packet, the packet pool controller process causes the data communications device to perform the operation of:

obtaining, from a pooled packet index in the pooled packet, a starting location and length of the at least one packet of stream data in the pooled packet; and

extracting the at least one packet of stream data from the pooled packet based on starting location and length of the at least one packet of stream data.

31. (Previously Presented) A computer program product having a computer-readable medium including computer program logic encoded thereon that, when performed on a computer system having a coupling of a memory, a processor, and at least one communications interface, causes the computer system to transmit stream data in a computer network by performing the operations of:

identifying at least two packets of stream data that are destined to a common location in a computer network;

forming a pooled packet of stream data using the at least two packets of stream data; and

transmitting the pooled packet to the common location in the computer network.

32. (Previously Presented) A computer program product having a computer-readable medium including computer program logic encoded thereon that, when performed on a computer system having a coupling of a memory, a processor, and at least one communications interface, causes the computer system to transmit stream data in a computer network by performing the operations of:

receiving via the at least one communications interface operating as a first destination in the computer network, a pooled packet of stream data containing a representation of at least two packets of stream data;

detecting if the pooled packet of stream data contains at least one packet of stream data that is to be extracted from the pooled packet of stream data at

the first destination, and if the at least one packet of stream data is to be
extracted from the pooled packet:

     extracting the at least one packet of stream data from the pooled
packet; and

     transmitting the extracted at least one packet of stream data to a
destination associated with the at least one packet via the at least one
communications interface.

33. (Original) A data communications device comprising:

     at least one communications interface;

     a memory;

     a processor; and

     an interconnection mechanism coupling the at least one communications
interface, the memory and the processor;

     wherein the memory is encoded with a packet pool controller application
that when performed on the processor, produces a packet pool controller process
that causes the data communications device to transmit stream data in a
computer network by providing means including:

     means for identifying at least two packets of stream data that are destined
to a common location in a computer network;

     means for forming a pooled packet of stream data using the at least two
packets of stream data; and

     means for transmitting the pooled packet to the common location in the
computer network.

34. (Original) A data communications device comprising:

     at least one communications interface;

     a memory;

     a processor; and

an interconnection mechanism coupling the at least one communications interface, the memory and the processor;

wherein the memory is encoded with a packet pool controller application that when performed on the processor, produces a packet pool controller process that causes the data communications device to transmit stream data in a computer network by providing means including:

means for receiving via the at least one communications interface operating as a first destination in the computer network, a pooled packet of stream data containing a representation of at least two packets of stream data;

means for detecting if the pooled packet of stream data contains at least one packet of stream data that is to be extracted from the pooled packet of stream data at the first destination, and if the at least one packet of stream data is to be extracted from the pooled packet:

means for extracting the at least one packet of stream data from the pooled packet; and

means for transmitting the extracted at least one packet of stream data to a destination associated with the at least one packet.